UNITED STATES PATENT AND TRADEMARK OFFICE

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 10/004191
Filing Date: October 31, 2001
Appellant(s): ROLAND M. HOCHMUTH et al.

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ROLAND M. HOCHMUTH et al.
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 1/28/2008 appealing from the Office action

mailed 11/14/2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,466,203	Van Ee	10-2002
6,044,445	Tsuda et al.	03-2000
6,704,024	Robotham et al.	03-2004

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 37-39, 43-45, 50-52 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Van Ee (U.S. Patent No. 6,466,203) in view of Tsuda et al. (U.S.

Patent No. 6,044,445).

Referring to claim 37, Van Ee teaches a system for display an image comprising:

a display device (as shown in Fig. 1, col. 2, lines 51-54) *communicatively*

couplable to a network (internet 116) *and adapted to display the image, the display*

device comprising:

a display network interface (114) *operable to receive bitmap image data of the*

image from the network (116, col. 2, lines 15-35, and col. 3, lines 57-62);

a display frame buffer (112) *operable to store the received graphics image data*

(col. 2, lines 31-35); *and*

a display refresh unit operable to read the graphics image data from the display

frame buffer and display the image (col. 3, line 55 to col. 4, line 5).

Although Van Ee does not explicitly teach the display refresh unit refresh the image *at a refresh rate*, Van Ee does teach the received graphics image from the network is streamed video, i.e. the display device as taught by Van Ee is capable of refreshing the image in order to display video frame by frame as is well known in the art. This is also taught by Tsuda et al. As shown in Fig. 1, Tsuda et al. teach a display device communicatively coupled to a network via a network interface 113, which received image from the network. The received image data is stored in a display frame buffer 119, and then read out to be displayed on the display 119 at an appropriate refresh rate (col. 1, lines 30-65).

Therefore, it would have been obvious to one skilled in the art to utilize the method of refreshing the image as taught by Tsuda et al. in combination with the method as taught by Van Ee in order to ensure the received image is properly displayed on the display device.

As per claims 38 and 39, Van Ee teaches the display network interface comprising a network interface port for receiving graphics image from the network (wireless modem 14).

As per claim 43, Van Ee teaches the display device adapted to display the image via an LCD 102 (Fig. 1).

As per claim 44, although Van Ee did not teach receiving the bitmap image data from a remote source device via a plurality of packets, Tsuda et al. teaches this feature as cited above (col. 1, lines 30-65). Thus, claim 44 would have been obvious.

Claims 45, 52, and 58, which are similar in scope to claim 37, are thus rejected under the same rationale.

Claim 50, which is similar in scope to claim 43, is thus rejected under the same rationale.

Claim 51, which is similar in scope to claim 44, is thus rejected under the same rationale.

As per claim 55, which is similar in scope to claim 37, further requires the network interface and the display refresh unit is integrated in a single-chip display controller. However, it would have been obvious to one skilled in the art to integrate the components of the network interface and the display refresh unit in a single chip display controller because by doing so, the size of the circuit board can be reduced and the circuit paths can also be shortened, thereby reducing the cost while enhancing performance.

Claim 61, which is similar in scope to claim 55, is thus rejected under the same rationale.

3.   Claims 40-42, 46-49, 53-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Ee (U.S. Patent No. 6,466,203) in view of Tsuda et al. (U.S. Patent No. 6,044,445), and further in view of Robotham et al. (U.S. Patent No. 6,704,024).

Referring to claims 40-42, Van Ee and Tsuda et al. fail to disclose a decompression unit to decompress bitmap image data and store in the frame buffer.

However, Robotham et al. teach a method to display of visual content on a client device using rasterized representations of visual content, wherein visual content is rendered on a server system, transformed into bitmaps compatible with the display attributes of a client device, and transmitted for display on the client device (col. 3, lines 5-10). As shown in Fig. 1, the client 24, which can be a PDA, or a wireless phone, comprising a network interface graphical image from the network, a memory 7 to store the fetched graphical image data, a display 5 to retrieve and display the image data (col. 8, lines 30-52). Robotham et al. further teach the display device also includes a decompression unit to decompress graphics image data (col. 9, lines 40-45). It is inherent that the bitmap image data is decompressed before being stored in the frame buffer because frame buffer is used to store data ready for display. Therefore, it would have been obvious to one skilled in the art to utilize the decompression unit as taught by Robotham et al. in combination with the method as taught by Van Ee and Tsuda et al. in order to reduce the bandwidth during data transmission.

Claims 46-47, 49, 53-54, 56-57, and 59-60, which are similar in scope to claims 40-42, are thus rejected under the same rationale.

As per claim 48, Van Ee and Tsuda et al. fail to teach storing decompressed graphics image data and the graphics image data in different portions of the display frame buffer. However, as cited above, Robotham et al. teach decompressing image data and storing decompressed image data. Robotham et al. further teach storing the received graphics image data into different portions of the display frame buffer (e.g. by dividing the received image into multiple tiles in which tile size is related to the size of a

client viewport 16 so that the user to select or switch between tiles, pan across adjacent

tiles, and/or to scroll across adjacent tiles (col. 29, lines 24-40). Thus, claim 48 would

have been obvious.

(10) Response to Argument

Appellant's arguments with respect to claims 37-54 have been considered but

are not persuasive. In response to Appellant's arguments that reference Van Ee fails to

teach the display device receives data from the network is bitmap image data (claim

37), the examiner disagrees. In fact, the cited portion in the rejections above and

throughout the disclosure of the Patent Van Ee, the handheld device receives data in

the form of bitmap image (such as col. 2, lines 15-35). It is also disclosed in the excerpt

above that the handheld device has a very limited capability of processing power.

Therefore, the conversion to bitmap format as argued by Appellant is not persuasive.

The examiner also noted that nowhere in the Specification of the instant Application that

the display device receives bitmap image data directly, i.e. without being decoded or

processed. Fig. 3 shows the graphics data is compressed before sending. Page 5 of the

specification (lines 28-30), where the only disclosure of bitmap data information is

available, states "*Rendering of an image typically comprises translating high-level

instruction to bitmap images which are a matrix of pixels.*" Thus, the received image

data should be in different formats (other than bitmap image data) before being

translated into bitmap data. Further, if the received graphics data is stored without being

decoded as argued by Appellant, then claims 40-42 would conflict with the arguments. The same reasons are applied to claims 45 and 52.

In response to Appellant's arguments on claim 55, as cited above in the rejection, the limitations have been addressed based on the teachings of both Van Ee and Tsuda. In particular, Van Ee teaches the claimed network interface, and Tsuda teaches the claimed display refresh unit. Therefore, it would have been obvious to one skilled in the art to integrate the components of the network interface and the display refresh unit in a single chip display controller because by doing so (rather than using separate ICs), the size of the circuit board can be reduced and the circuit paths can also be shortened, thereby reducing the cost while enhancing performance.

The limitations of claim 58 have also been addressed above, wherein the remote source device is the server that provide graphics image data over the network (as shown in Fig. 1). As is well known in the art, graphics image data ready to be transmitted to a client is usually stored in a buffer (frame buffer) (This feature can also be found in Tsuda with reference to Figs. 12 and 13, and their disclosures for reference).

In addition, Appellant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

For at least the above reasons, the cited references meet the minimum requirements of the claims, and therefore, rejection is maintained.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the

Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Hau H Nguyen/

Examiner, Art Unit 2628

Conferees:

/Kee M Tung/

Supervisory Patent Examiner, Art Unit 2628

/XIAO M. WU/

Supervisory Patent Examiner, Art Unit 2628